THE BRAIN: UNDERSTANDING NEUROBIOLOGY THROUGH THE STUDY OF ADDICTION		
Rhode Island Grade Span Expectations: Life Science		
Lesson	**Standard**	**GSEs**
2, 3	**LS1 (9-11) SAE+FAF-1b**	Students demonstrate understanding of structure and function-survival requirements by explaining that most multicellular organisms have specialized cells to survive, while unicellular organisms perform all survival functions (e.g., nerve cells communicate with other cells, muscle cells contract, unicellular are not specialized).
4	**LS1 (9-11) FAF+ POC-2b**	Students demonstrate an understanding of the molecular basis for heredity by explaining how DNA may be altered and how this affects genes/heredity (e.g. substitution, insertion, or deletion).
3, 4, 5	**LS2 (9-11) NOS-5a**	Students will evaluate potential bias from a variety of media sources in how information is interpreted by analyzing claims from evidence and sources and evaluate based upon relevance, and validity.
4	**LS3 (9-11) INQ POC-7a**	Students demonstrate an understanding of Natural Selection/ evolution by investigating how information is passed from parents to offspring by encoded molecules (e.g. evidence from electrophoresis, DNA fingerprinting).
3, 4	**LS4 (9-11) NOS+INQ-9a**	Students demonstrate an understanding of how humans are affected by environmental factors and/or heredity by researching scientific information to explain how such things as radiation, chemicals, and other factors can cause gene mutations or disease.
1, 2, 3	**LS4 (9-11) SAE+FAF -10a**	Students demonstrate an understanding of human body systems by explaining how the roles of the immune, endocrine, and nervous systems work together to maintain homeostasis.
1, 2, 3	**LS4 (9-11) SAE+FAF -10b**	Students demonstrate an understanding of human body systems by investigating the factors that affect homeostasis (e.g. positive and negative feedback).
Rhode Island Grade Span Expectations: Mathematics – Grades 9 & 10		
Lesson	**Standard**	**GSEs**
3, 4	**M(N&O)–10–2**	Demonstrates understanding of the relative magnitude of real numbers by solving problems involving ordering or comparing rational numbers, common irrational numbers (e.g., 2 , π), rational bases with integer exponents, square roots, absolute values, integers, or numbers represented in scientific notation using number lines or equality and inequality symbols.
3, 4	**M(N&O)–10–6**	Uses a variety of mental computation strategies to solve problems.
3, 4	**M(N&O)–10–8**	Applies properties of numbers to solve problems, to simplify computations, or to compare and contrast the properties of numbers and number systems.
3	**M(G&M)–10–7**	Uses units of measure appropriately and consistently when solving problems across content strands; makes conversions within or across systems and makes decisions concerning an appropriate degree of accuracy in problem situations involving measurement in other GSEs.
3, 4	**M(F&A)–10–1**	Identifies, extends, and generalizes a variety of patterns (linear and nonlinear) represented by models, tables, sequences, or graphs to solve problems.
2, 3, 4	**M(DSP)–10–1**	Interprets a given representation (e.g., box-and-whisker plots, scatter plots, bar graphs, line graphs, circle

		graphs, histograms, frequency charts) to make observations, to answer questions, to analyze the data to formulate or justify conclusions, critique conclusions, make predictions, or to solve problems within mathematics or across disciplines or contexts (e.g. media, workplace, social and environmental situations).
2, 3, 4	**M(DSP)–10–3**	Identifies or describes representations or elements of representations that best display a given set of data or situation, consistent with the representations required in M(DSP)–10–1.
2, 3, 4	**M(DSP)–10–6**	In response to a teacher or student generated question or hypothesis decides the most effective method (e.g., survey, observation, research, experimentation) and sampling techniques (e.g., random sample, stratified random sample) to collect the data necessary to answer the question; collects, organizes, and appropriately displays the data; analyzes the data to draw conclusions about the questions or hypotheses being tested while considering the limitations of the data that could effect interpretations; and when appropriate makes predications, asks new questions, or makes connections to real-world situations.
Rhode Island Grade Span Expectations: Reading – Grade 10		
Lesson	**Standard**	**GSEs**
All lessons	**R—10—2.1a**	Students identify the meaning of unfamiliar vocabulary by using strategies to unlock meaning (e.g., knowledge of word structure) including prefixes/suffixes, common roots, or word origins; or context clues; or resources including dictionaries, glossaries, or thesauruses to determine definition, pronunciation, etymology, or usage of words; or prior knowledge).
All lessons	**R—10—3.2**	Select appropriate words or explaining the use of words in context, including connotation or denotation, shades of meanings of words/nuances, or idioms; or use of content-specific vocabulary, words with multiple meanings, precise language, or technical vocabulary.
All lessons	**R—10—7.2**	Demonstrate initial understanding of informational texts (expository and practical texts) by using information from the text to answer questions; to state the main/central ideas; to provide supporting details; to explain visual components supporting the text; or, to interpret maps, charts, timelines, tables, or diagrams.
All lessons	**R—10—7.3**	Demonstrate initial understanding of informational texts (expository and practical texts) by organizing information to show understanding or relationships among facts, ideas, and events (e.g., representing main/central ideas or details within text through charting, mapping, paraphrasing, summarizing, comparing/contrasting, outlining).
All lessons	**R—10—7.4**	Demonstrate initial understanding of informational texts (expository and practical texts) by generating questions before, during, and after reading to enhance understanding and recall; expand understanding and/or gain new information.
All lessons	**R—10—8.1**	Analyze and interpret informational text, citing evidence as appropriate by explaining connections about information *within* a text, *across* texts, or to related ideas.
3, 4, 5	**R—10—8.4**	Analyze and interpret informational text, citing evidence as appropriate by distinguishing fact from opinion, and evaluating possible bias/propaganda or conflicting information within or across texts.
All lessons	**R—10—8.5**	Analyze and interpret informational text, citing evidence as appropriate by making inferences about causes and/or effects.
All lessons	**R —10—13**	Uses comprehension strategies (flexibly and as needed) before, during, and after reading literary and informational text.

All lessons	**R—10—17.2**	Demonstrates participation in a literate community by participating in in-depth discussions about text, ideas, and student writing by offering comments and supporting evidence, recommending books and other materials, and responding to the comments and recommendations of peers, librarians, teachers, and others.
2, 3, 4, 5	**R—10—15.1**	Research by reading multiple sources (including print and non-print texts) to solve a problem, or to make a decision, or to formulate a judgment, or to support a thesis by identifying and evaluating potential sources of information.
2, 3, 4, 5	**R—10—15.3**	Research by reading multiple sources (including print and non-print texts) to solve a problem, or to make a decision, or to formulate a judgment, or to support a thesis by organizing, analyzing, and interpreting the information.
2, 3, 4, 5	**R—10—15.4**	Research by reading multiple sources (including print and non-print texts) to solve a problem, or to make a decision, or to formulate a judgment, or to support a thesis by drawing conclusions/judgments and supporting them with evidence.
Rhode Island Grade Span Expectations: Writing – Grade 10		
Lesson	**Standard**	**GSEs**
All lessons	**W—10—1.1**	Students demonstrate command of the structures of sentences, paragraphs, and text by using varied sentence length and structure to enhance meaning (e.g., including phrases and clauses).
All lessons	**W—10—1.4**	Students demonstrate command of the structures of sentences, paragraphs, and text by applying a format and text structure appropriate to purpose, audience, and context.
All lessons	**W—10—2.1**	In response to literary or informational text, students show understanding of plot /ideas/concepts by selecting and summarizing key ideas to set context, appropriate to audience.
All lessons	**W—10—2.3**	In response to literary or informational text, students show understanding of plot /ideas/concepts by connecting what has been read (plot/ideas/concepts) to prior knowledge, other texts, or the broader world of ideas, by referring to and explaining relevant ideas or themes.
All lessons	**W—10—3.4**	In response to literary or informational text, students make and support analytical judgments about text by organizing ideas or using transitional words/phrases and drawing a conclusion by synthesizing information (e.g., demonstrate a connection to the broader world of ideas).
All lessons	**W—10—6.1**	In informational writing, students organize ideas/concepts by using a text structure appropriate to focus/controlling idea or thesis (e.g., purpose, audience, and context).
All lessons	**W—10—6.2**	In informational writing, students organize ideas/concepts by selecting appropriate and relevant information (excluding extraneous details) to set context.
All lessons	**W—10—7.2**	In informational writing, students effectively convey purpose by stating and maintaining a focus/controlling idea/thesis.
All lessons	**W—10—7.3**	In informational writing, students effectively convey purpose by writing with a sense of audience, when appropriate.
All lessons	**W—10—7.5**	In informational writing, students effectively convey purpose by using precise and descriptive language that clarifies and supports intent.

All lessons	**W—10—8.1**	In informational writing, students demonstrate use of a range of elaboration strategies by including facts and details relevant to focus/controlling idea or thesis, and excluding extraneous information.
All lessons	**W—10—8.2**	In informational writing, students demonstrate use of a range of elaboration strategies by including sufficient details or facts for appropriate depth of information: naming, describing, explaining, comparing, contrasting, or using visual images to support intended purpose.
All lessons	**W—10—8.4**	In informational writing, students demonstrate use of a range of elaboration strategies by commenting on the significance of the information (in reports, throughout the piece; in procedural or persuasive writing, as appropriate).
All lessons	**W—10—9.1**	In independent writing, students demonstrate command of appropriate English conventions by applying rules of standard English usage to correct grammatical errors.
All lessons	**W—10—9.5**	In independent writing, students demonstrate command of appropriate English conventions by applying conventional and word derivative spelling patterns/rules.
All lessons	**W—10—11.2**	Demonstrates the habit of writing extensively by sharing thoughts, observations, or impressions.
5	**W—10—14.2**	In reflective writing, students explore and share thoughts, observations, and impressions by analyzing a condition or situation of significance (e.g., reflecting on a personal learning or personal growth), or developing a commonplace, concrete occasion as the basis for the reflection.
5	**W—10—14.4**	In reflective writing, students explore and share thoughts, observations, and impressions by using a range of elaboration techniques (i.e., questioning, comparing, connecting, interpreting, analyzing, or describing) to establish a focus.
All lessons	**OC—10—1.1**	In oral communication, students demonstrate interactive listening by following verbal instructions, to perform specific tasks, to answer questions, or to solve problems.
All lessons	**OC—10—1.2**	In oral communication, students demonstrate interactive listening by summarizing, paraphrasing, questioning, or contributing to information presented.
All lessons	**OC—10—1.4**	In oral communication, students demonstrate interactive listening by participating in large and small group discussions showing respect for a range of individual ideas.
All lessons	**OC—10—1.5**	In oral communication, students demonstrate interactive listening by reaching consensus to solve a problem, make a decision, or achieve a goal.
All lessons	**OC—10—2.1**	In oral communication, students make oral presentations by exhibiting logical organization and language use, appropriate to audience, context, and purpose.
Rhode Island Instructional Outcomes: Health Education – Grades 9 & 10		
Lesson	**Standard**	**Instructional Goal**
3, 4, 5	**PSL—1.1** **DCP—1.1**	Analyze how behavior can impact health maintenance and disease prevention.
4, 5	**MH—1.1**	Analyze how mental and emotional health can impact health maintenance and disease prevention.
4	**PSL—1.2**	Explain the interrelationships of mental, emotional, social and physical health required through young adulthood.
3, 4, 5	**DCP—1.2**	Analyze the impact of communicable and non-communicable (infectious and chronic) diseases/substance abuse

	SAP—1.3	on the functioning of body systems.
4, 5	**SAP—1.2**	Describe the impact of substance use on the interrelationships of mental, emotional, social and physical health throughout young adulthood.
4, 5	**PSL—1.3**	Explain how to delay onset and reduce risks of potential life-long health problems relating to lifestyle.
4, 5	**DCP—1.3**	Analyze how the family, peers, community and environment are interrelated with disease prevention and control.
4, 5	**PSL—1.4** **INJ—1.3** **SAP—1.4**	Analyze how the family, peers, community and environment influence the lifestyle, quality of life, health or substance use behaviors of individuals.
3, 4, 5	**SAP—2.1**	Analyze resources from home, school and community that provide valid substance abuse information.
5	**PSL—2.2** **MH—2.3** **INJ—2.2** **DCP—2.5** **SAP—2.3**	Analyze situations relating to/requiring personal health services.
3, 4, 5	**PSL—3.1** **MH—3.1** **DCP—3.1** **SAP—3.1**	Analyze the role of individual responsibility for enhancing health, healthy behaviors or preventing disease.
4	**PSL—3.2** **INJ—3.2**	Evaluate personal health behaviors to determine strategies for health enhancement and risk reduction.
3, 4, 5	**MH—3.3** **SAP—3.3**	Analyze the short-term and long-term consequences of risky and harmful behaviors.
4, 5	**PSL—4.1**	Evaluate the effect of media and other factors on personal, family, community health and environmental.
All lessons	**PSL—5.1** **INJ—5.1** **SAP—5.1**	Apply effective skills for communicating effectively with the family, peers and others about personal, family, community and environmental health. Use effective communication skills with family, peers and others.
3, 4, 5	**MH—5.4** **INJ—5.4** **DCP—5.2** **SAP—5.5**	Communicate care, consideration and respect of self and others.
4, 5	**PSL—6.1** **SAP—6.1**	Analyze the ability to use different strategies when making decisions related to lifestyle for young adults (PSL) or substance abuse (SAP).
4, 5	**PSL—6.2** **DCP—6.1** **SAP—6.2**	Analyze lifestyle concerns/disease prevention and control issues/substance abuse concerns that require individuals to work together.

4, 5	**PSL—6.3 INJ—6.3 DCP—6.2 SAP—6.3**	Predict immediate and long-term impact of lifestyle/risk-taking decisions/behaviors leading to risks for communicable and non-communicable disease/substance abuse on the individual, family and community and environment.
3, 4, 5	**MH—6.4 SAP—6.4**	Describe how personal health goals/use of substances are influenced by changes in information, abilities, priorities, and responsibilities.
3, 4, 5	**PSL—7.1**	Evaluate information and express opinions about lifestyle and wellness.
3, 4, 5	**DCP—7.1 SAP—7.1**	Discuss accurate information about communicable and non-communicable disease prevention and control issues/substance abuse and express opinions about them.
3, 4, 5	**PSL—7.2**	Design methods for accurately expressing information and ideas about wellness.
4, 5	**PSL—7.3 MH—7.4 DCP—7.4 SAP—7.4**	Influence and support others in making choices about positive health behaviors/choices.
4, 5	**PSL—7.4 MH—7.5 INJ—7.4 DCP—7.5 SAP—7.5**	Work cooperatively when advocating for healthy communities.